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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/593,102	09/15/2006	Yozo Uchida	070759-0046	9358
20277 7590 04/23/2009 MCDERMOTT WILL & EMERY LLP 600 13TH STREET, N.W. WASHINGTON, DC 20005-3096				
EXAMINER ZHANG, YUANDA				
ART UNIT		PAPER NUMBER		
2828				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/593,102

Applicant(s)

UCHIDA ET AL.

Examiner

YUANDA ZHANG

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27-31, 40 and 41 is/are pending in the application.
- 4a) Of the above claim(s) 32-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 27-31, 40 and 41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 27-31 and 40-41 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Onomura et al (US Patent 6,067,309) and Sato et al (US PG Pub 2005/0195876 A1).
4. In re claim 27, with reference to figure 4, Onomura et al disclose a ridge stripe semiconductor laser device comprising an active layer (MQW 6), upper and lower clad layers (waveguide layers 5 & 7) that sandwich the active layer therebetween, a stripe-shaped ridge (mesa structure as shown in figure 4) formed in part of the upper clad layer (col. 9 lines 35-37), and a current block layer (41) that covers both sides of the stripe-shaped ridge other than a top face thereof (the current block layer 41 covers both sides of the striped structure with exposing the top surface of the ridge) (col. 9 lines 37-40), wherein a first electrode (electrode pad 10) is formed on an upper face of the semiconductor laser device, and a second electrode (electrode pad 11) is formed on the first

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electrode, wherein the first electrode is made thinner than the second electrode (electrode pad 10 is thinner than electrode pad 11 since the thicknesses of the electrode structure are arranged as follow: Pt (5nm) / Ti (30nm) / Pt (10 nm) / Au (1 micron) in order) (col. 6 lines 34-36), and is so formed as to cover at least an entire area of the top face (the electrode structure covers the entire top surface of the ridge) (see figure 4), and wherein the second electrode is formed at a given distance (any distance since the Applicant has not explicitly define the given distance) away from both strip-direction ends of the ridge and at a given distance (see similar argument above) away from both width-direction ends (Onomura et al disclose only the cross sectional view of the device). Onomura et al do not explicitly disclose wherein the first electrode is formed to extend to both strip-direction ends of the ridge, and the width-direction intersecting the strip-direction of the ridge. However, Sato et al disclose a ridge waveguide type FB laser with a three-dimensional view and a corresponding cross sectional view (see figures 1 and 2) in which electrode 108 is formed to extend to both strip-direction ends (The Examiner notes that strip-direction corresponds to the length-direction and it's perpendicular to the width-direction; therefore, they are intersecting with each other). It would have been obvious to one having ordinary skill in the art at the time the invention was made to extend the electrode in both strip-direction ends since it was known in the art that an entire top surface of a ridge of a ridge strip semiconductor laser is covered by an electrode extended in strip-direction ends in order to supply uniform current to the active region.

5. Claims 28-31 and 40-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Onomura et al (US Patent 6,067,309) in view of Sato et al (US PG Pub 2005/0195876 A1) and Yamada (US PG Pub 2004/0245534 A1).

In re claim 28, Onomura et al / Sato et al have disclosed the claimed invention above (see rejection of claim 27) except a plurality of ridge stripe semiconductor laser portion. However, with reference to figure 2, Yamada discloses a plurality of ridge strip semiconductor laser portions (paragraph [0043]). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a plurality of ridge strip semiconductor portions, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

6. In re claims 29 and 30, Yamada discloses wherein a width direction length of the second electrode is longer than a width direction length of the first electrode (see figure 2).

7. In re claim 31, Yamada discloses wherein, between the plurality of semiconductor laser portions, a groove (trench 11) for electrically separating the semiconductor laser portions from each other is formed, and wherein the first electrode is formed away from the groove (paragraph [0043]).

8. In re claims 40 and 41, Onomura et al disclose wherein a film thickness of the first electrode is equal to or smaller than 100 nm (the first electrode 10 has a thickness of 5 nm) (col. 6 lines 34-36).

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YUANDA ZHANG whose telephone number is (571)270-1439. The examiner can normally be reached on Monday-Friday, 9:00am-5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minsun Harvey can be reached on 571-272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Yuanda Zhang/
Examiner, Art Unit 2828
04/20/09

/Minsun Harvey/
Supervisory Patent Examiner, Art Unit 2828